



# City of Placerville

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March 10, 2008

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California Regional Water Quality Control Board  
Central Valley Region  
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SUBJECT: HANGTOWN CREEK WATER RECLAMATION FACILITY  
TENTATIVE DRAFT WASTE DISCHARGE REQUIREMENTS (NPDES  
PERMIT NO. CA0078956) AND CEASE AND DESIST ORDER

Dear Ms. Messina:

As requested in your letter dated January 29, 2008, the following are the City's comments regarding the Tentative Waste Discharge Requirements (Tentative WDRs) and tentative Cease and Desist Order (Tentative CDO).

## **Waste Discharge Requirements**

### **Limitations and Discharge Requirements**

*Page 3, A. Background.* The City requests that the second sentence be modified as follows: "The Discharger submitted a Report of Waste Discharge, dated 27 September 2005, and supplemental information on 5 May 2006, and applied for a NPDES permit renewal to discharge up to 2.3 million gallons per day (mgd) average dry weather flow (ADWF) of wastewater from the Hangtown Creek Water Reclamation Facility, hereinafter Facility."

*Page 5, G. Water Quality Based Effluent limitations.* This finding states: "This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The Regional Water Board has considered the factors listed in CWC Section 13241 in establishing these requirements. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements, is discussed in the Fact Sheet Section IV.C.2."

- First, effluent limitations are either technology-based or water quality-based. Neither federal nor State regulations prescribe a “technology equivalence requirement.” In addition, this section states that these requirements are “necessary to meet applicable water quality standards” and, as such, are water-quality based. Therefore, the City requests the following edit: “This Order contains requirements, expressed as a water quality-based ~~technology equivalence~~ requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards.”
- Second, this finding states: “The Regional Water Board has considered the factors listed in CWC Section 13241 in establishing these requirements.” There is inadequate discussion and findings relating to the section 13241 factors in the Order and the Fact Sheet and thus no evidentiary basis to support the statement that the factors have been considered is presented. As such, the Order does not adequately consider the 13241 factors when imposing limitations more stringent than federal standards. This same comment applies to finding “M” (p. 8) and to Attachment F.
- Third, this finding states: “The rationale for these requirements, which consist of tertiary treatment or equivalent requirements, is discussed in the Fact Sheet Section IV.C.2.” It is an exceedance of the Regional Water Board’s authority to prescribe a treatment process. Rather, the Order is to define effluent limitations only, and it is up to the Discharger to design, construct, and operate treatment facilities to comply with the limitations. The City requests that this text be edited accordingly.

*Page 10, U. Salinity.* There appears to be a typographical error here, with the following change warranted: “U. ~~Salinity~~—Salinity (Electrical Conductivity or EC).”

*Page 11, Table 6 Final Effluent Limitations.*

- There appears to be a typographical error, with the following change warranted: Superscript 4 for BOD 5-day and TSS (i.e. refers to footnote: “See following page for additional Effluent Limitations”) should be deleted. These superscripts do not apply
- There appears to be a typographical error, with the following change warranted: Footnote 5 should be revised to read “... Tables 7.a through 7.f.”

- The maximum daily effluent limit (MDEL) for Dibromochloromethane (0.98 ug/L) has been made more stringent (decreased from 0.99 ug/L). The City requests that the calculation be reassessed.

*Page 11, Effluent Limitations for Aluminum.*

- It would appear that the interim limit of 112 ug/L should be an average monthly effluent limit (AMEL), not a MDEL. The interim MDEL (112 ug/L) is lower than the final MDEL is 125 ug/L.
- The final AMEL (76.7 ug/L) has been made more stringent (decreased from 79.8 ug/L). The City requests that the calculations be reassessed.

*Page 11, Effluent Limitations for Nitrate + Nitrite.* The City requests that the effluent limitation for Nitrate + Nitrite be only an AMEL of 10 mg/L (as N). The basis for the 10 mg/L effluent limitation is the California Department of Health Services (DPH) primary MCL for Nitrate + Nitrite, (which also is the basis for the MTBE, Atrazine, and THM effluent limitations). In NPDES Permits, the RWQCB typically regulates Nitrate + Nitrite based on a monthly average.

*Page 11, Effluent Limitations for Persistent Chlorinated Hydrocarbon Pesticides.* The Order should be revised to contain water quality-based effluent limitations only for those pesticides exhibiting reasonable potential, instead of all persistent chlorinated hydrocarbon pesticides. Relevant language in the Basin Plan, the State's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) and federal regulations do not require water quality-based effluent limitations for all persistent chlorinated hydrocarbon pesticides (individually or collectively) when one pesticide from this class exhibits reasonable potential. Thus, at the very least, effluent limitations for "persistent chlorinated hydrocarbon pesticides" should be removed and instead effluent limitations only for those exhibiting reasonable potential (beta endosulfan, dalapon, 2,4-D, 4,4'-DDD, dinoseb, endrin, endrin aldehyde, heptachlor, and 2,4,5-TP) be included, and "Table 6. Effluent Limitations" be modified accordingly. This same change should be made to the Fact Sheet and on the compliance schedule Table on p. 31. . In addition, the current table applies the effluent limitation as an "instantaneous maximum." This is an inappropriate time period for compliance as it is routinely associated with metered data. Instead, the effluent limitation needs to be applied as a "daily maximum." By permitting only the persistent chlorinated hydrocarbon

pesticides that have reasonable potential, there is no need to define the list of persistent chlorinated hydrocarbon pesticides on p. A-4. Thus, this list should be deleted.

*Page 13, Table 7.b. Interim MDEL for Zinc.* The City requests that the interim limit be raised to exceed the maximum effluent concentration (MEC). The interim MDEL limit for Zinc (87.3 ug/L) is less than the Maximum Effluent Concentration (MEC) of 111 ug/L, which was detected in a November 2002 effluent sample.

*Page 13, Table 7.c.* The City requests that the interim limit be raised to exceed the MEC. The Interim MDEL for the interim maximum daily effluent limit for Endrin Aldehyde (0.159 ug/L) is less than the MEC of 0.51 ug/L detected in a December 2005 effluent sample.

*Page 15, Reclamation Specifications.* The City requests that the text in this section be replaced with "Not Applicable" to be consistent with Page F-60 in the Fact Sheet. The City currently does not reclaim any of the treated effluent.

*Page 15, Table 7.f. Interim Effluent Limitations.* The City requests that the interim limit for electrical conductivity be increased from 825 to 900 umhos/cm. Based on review of effluent data, the average annual electrical conductivity for 2007 was approximately 820 umhos/cm.

*Page 15, Dissolved Oxygen.* The permit limitations are stated as follows:

- "The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass;
- The 95 percentile dissolved oxygen concentration to fall below 75 percent of saturation; nor
- The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time."

In order to assess compliance with "a" and "b" above, receiving water dissolved oxygen (DO) would need to be measured hourly or continuously. This is not practical or necessary to assure protection of aquatic life uses, nor is it required of any other discharger. Consequently, the City requests that the "a" and "b" components of this limitation be eliminated from the permit, leaving only "c," which can be assessed based on the 1/week monitoring specified in the Monitoring and Reporting Program.

*Page 17, Turbidity.* There appears to be a typographical error in limitation 17.a and the following change is warranted:

“a. More than 1 Nephelometric Turbidity Unit (NTU) where natural turbidity is between 0 and 5 NTUs. (When wastewater is treated to a tertiary level, including coagulation, a one-month averaging period may be used when determining compliance with Receiving Water Limitation ~~18.a~~ 17.a for turbidity.)”

*Page 23, f. Water Effects Ratios (WER) and Metal Translators.* The City requests that the second sentence be modified as follows to reflect the fact that the mercury limitation is a performance-based mass limitation and, thus, was not calculated using any default WER or metal translator: “In addition, default dissolved-to-total metal translators have been used to convert water quality objectives from dissolved to total recoverable when developing effluent limitations for Aluminum, Copper, Lead, ~~Mercury~~, and Zinc.”

*Page 25, Item iv.c) Accelerated Monitoring Specifications.* The City requests the following modifications to clearly allow for the circumstances discussed in item b of this section and described in other recently adopted NPDES permits (i.e., City of Lodi Order No. R5-2007-0113):

“If the result of any accelerated toxicity test exceeds the monitoring trigger and the source(s) of the toxicity are not easily identified as described in item b of this subsection, the Discharger shall cease accelerated monitoring and initiate a TRE to ...”

*Pages 25-26, b. BPTC Evaluation Tasks.* This provision triggers a BPTC work plan and evaluation based on the results of groundwater monitoring. The Order does not require groundwater monitoring (see p. F-66). Furthermore, the City is underway with a major upgrade that is anticipated to provide BPTC. The Facility upgrades are due to be completed in early 2009. Thus, the City requests that the BPTC evaluation provision be removed from the Order. If this provision is retained, the purpose of and need for this comprehensive technical evaluation needs to be justified in the Fact Sheet. Furthermore, the term “component” needs to be defined. Also, the relevance of “compliance with groundwater limitations” in Task 5 is also unclear.

*Pages 26-27, Supplemental Evaluation of Temperature.* It appears that Task 1 should be modified as follows: “Submit ~~technical report study work plan~~...” Also, it appears that the Task 4 date should be changed to 1 March 2011 (rather than 2010).

*Page 27, Item 3.a. Pollutant Minimization Program.* The City requests that this section be removed from the Order. This section is not included in other Tentative Orders prepared by Central Valley RWQCB (see Roseville Preliminary Draft Orders, Vacaville Tentative Order, and City of Brentwood adopted Order). Moreover, the City does not believe the section is implementable due to its broad scope and vague requirements.

*Page 30, Other Special Provisions 6.a.* The City requests that the following wording be added at the beginning of the sentence.

“If the City reclaims its wastewater, the wastewater...”

Since the City does not currently reclaim its effluent, the Title 22 reclamation criteria does not apply.

*Page 30, Compliance Schedules.* There appears to be a typographical error in the numbering of items in this section. The first item “Compliance Schedules for Final Effluent Limitations for Aluminum...” should be numbered “7.a.” instead of “7.i.” This will partially address incorrect references to this section in Table E-11.

*Page 30, Compliance Schedules ii.* As requested previously (City’s Infeasibility Report dated September 2006 and discussed at our September 6 and 11 meetings), the City requests that Total Ammonia be included in the compliance schedule. The proposed limits were exceeded in December 2006.

*Page 31, Compliance Schedules i.* The City requests that the second sentence be revised as follows (see underline) to clarify the report date:

“In a Supplemental Infeasibility Report dated 31 August 2007, the Discharger submitted a compliance schedule justification for Aluminum and Atrazine.”

*Page 31, Task 1, Pollution Prevention Plan.* The City requests that the individual sections in the Fact Sheet in which the WQBELs for Cyanide, Dibromochloromethane, Dichlorobromomethane, MTBE, Sulfide, and THMs are derived be changed to delete language referring to pollution prevention plan development. As stated on p. F-57 of the Fact Sheet, “Reducing the concentrations of Cyanide, Dibromochloromethane, Dichlorobromomethane, MTBE, Sulfide, and THMs in the discharge is primarily dependent upon completion of the treatment plant upgrades and not on pollution prevention and source control.” The treatment plant upgrades are scheduled for completion on 28 February 2009. This Order provides 90 days after upgrade completion for the Discharger to comply with the effluent limitations for Cyanide, Dibromochloromethane, Dichlorobromomethane, MTBE, Sulfide, and THMs.” [emphasis added] Since pollution prevention and source

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control are not the avenues for compliance for these constituents, the pollution prevention plan (PPP) requirement in Task 1, and elsewhere in the Order, should exclude these constituents.

*Page 32, Compliance Determination.* This section omits a key aspect of compliance determination established in the SIP. Consistent with Section 2.4.5 of the SIP, the City requests that the Tentative Order should include a new item "A." within Section VII that reads as follows:

"A. Use of Laboratory Analytical Results. The Discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL)."

In addition, the City requests that subsequent items in Section VII be re-lettered:

The Reporting Protocols (p. E-11) require that only sample results less than the laboratory method detection limit (MDL) may be reported as "non-detectable" or "ND." Sample results less than reporting level (RL), but greater than the MDL must be reported with an estimation of the sample concentration. Per the SIP, this "detect" at an estimated concentration may not be used for compliance determination, because Section 2.4.5 specifies that the sample concentration must be greater than the RL (and greater than the effluent limitation) for a discharger to be deemed out of compliance. To avoid estimated concentrations from being erroneously considered a "detection" for compliance determination purposes, this additional language above is needed in the Order. This is particularly important for correct assessment of the "ND" effluent limitation for persistent chlorinated hydrocarbon pesticides.

In addition, the following edits are necessary for the existing Section VII.A text to ensure that compliance with the "ND" final effluent limitations for chlorinated pesticides is properly assessed and terminology is consistent with the definitions in Attachment A:

"Persistent Chlorinated Hydrocarbon Pesticides Effluent Limitations. The nondetectable (ND) limitation applies to each individual pesticide. No individual pesticide may be present in the discharge at ~~detectable~~ concentrations greater than or equal to the reporting level (RL). The Discharger shall use USEPA standard analytical techniques with the lowest possible detectable level for persistent chlorinated hydrocarbon pesticides with a ~~minimum~~ maximum acceptable ~~reporting level (RL)~~ as indicated in appendix 4 of the SIP. If the analytical result of a single effluent grab sample is ~~detected~~ for any persistent chlorinated

hydrocarbon pesticide exceeds its respective RL, a violation will be flagged and the discharger will be considered out of compliance for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of noncompliance with the instantaneous maximum effluent limitation)."

*Page 32, Compliance Determination A. Persistent Chlorinated Hydrocarbon Pesticides.* The City requests the following text edit:

"The Discharger shall use USEPA standard analytical techniques with the lowest possible detectable level for persistent chlorinated hydrocarbon pesticides with a maximum acceptable detection level of 0.05 ug/L." This way, the narrative "ND" objective is quantitatively interpreted for the Discharger. The language in the administrative draft fails to define the narrative objective for regulatory compliance purposes, and would result in a limitation that would continuously change over time, and by laboratory selected, which would not be appropriate.

*Page 32, Compliance Determination B. Total Trihalomethanes Limitations.* There appears to be a typographical error in the THMs listed. The City requests the following change: "Total Trihalomethanes include the sum of concentrations of Bromoform, Chloroform, Dibromochloromethane, and Dichlorobromomethane."

*Page 33, F. Average Dry Weather Flow Effluent Limitations.* There appears to be a typographical error. This section should reference Section IV.A.1.g, not IV.A.1.i.

#### **Attachment A – Definitions and Acronyms**

*Page A-2, Estimated Chemical Concentration.* To maintain consistency in terminology used in other definitions (e.g., DNQ) and to avoid confusion, the City requests the following change: "Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ~~ML~~ RL value."

*Page A-4, Not Detected (ND).* The City requests the following edit to this definition: "are those sample results less than the laboratory's MDL, or the Minimum Levels (MLs) specified in Appendix 4 of the SIP for persistent chlorinated hydrocarbon pesticides."

#### **Attachment C**

*Page C- 2, Figure C-2 New Facility Flow Schematic.* There is the following typographical error: "filtered effluent storage" is incorrectly labeled "secondary storage".

**Attachment E – Monitoring and Reporting Program**

*Page E-2, Table E-1. Monitoring Station Locations.* The City requests clarification. From the description in the table for SPL-001 in Table E-1, it is not clear that this represents an appropriate municipal water supply monitoring location.

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Composite sampler after grit chamber and before the Parshall flume.
001	EFF-001	Downstream from the last connection through which wastes can be admitted into the outfall. (Discharge point 001 is at Latitude 38° 43' 40" N and Longitude 120° 51' 04" W.)
--	RSW-001	100 feet upstream from the point of discharge and not influenced by the discharge of effluent.
--	RSW-002	1320 feet downstream from the point of discharge.
--	BIO-001	Sludge cake from Sludge Belt Presses #1 and #2.
--	SPL-001	Inside <u>municipal water supply</u> tap on pre-deionized water before the filters.

*Page E-3, Table E-3, Effluent Monitoring.* There appears to be some incorrect assignment of footnotes as follows:

- a) Hardness – Footnote 14 does not apply
- b) Methyl mercury – there is no effluent limitation for this parameter, so Footnote 12 does not apply
- c) Footnote #16 – this footnote (CTR Priority Pollutants) is only used in this table for certain pesticides, but applies to other parameters in Table E-3 (e.g., mercury, copper). Suggest deleting this footnote, since its inclusion does not clarify any monitoring protocols.

*Page E-4, Item V. A. 4. Methods.* The City requests the following modification to the text to account for future updates EPA to the specified method:

4. Methods – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition, and its subsequent amendments or revisions.

*Page E-5, V.B.5. Methods.* The City requests the following modification to the text to account for future updates by EPA to the specified method. This will also make the reference consistent with item 8.a. on p. E-6.

5. *Methods* – The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002, and its subsequent amendments or revisions.*”

*Page E-5, Item 7. Dilutions.* The City requests the following modifications to clarify the appropriate dilution water when there is no upstream water:

“The chronic toxicity testing shall be performed using the dilution series identified in Table E-5, below. The receiving water control shall be used as the diluent (unless the receiving water is toxic or there is no upstream water).

If the receiving water is toxic or there is no upstream receiving water flow, laboratory control water may be used as the diluent, in which case, the receiving water should still be sampled and tested to provide evidence of its toxicity.”

*Page E-8 and E-9, Tables E-8a and E-8b, Receiving Water Monitoring Requirements.* The City requests that the monitoring for fecal coliform organisms in the receiving water be removed. Based on effluent total coliform bacteria limitations, it is impossible for the discharge to cause an exceedance of the Basin Plan fecal coliform objective in the receiving water and, therefore, the receiving water monitoring for fecal coliform organisms as required in the Tentative WDRs is not needed.

*Page E-16, Table E-11, Reporting Requirements for Special Provisions Progress Reports.* The City requests the following corrections to Table E-11:

- a) BPTC Evaluation Tasks – should reference Section VI.C.2.b, not VI.C.2.c
- b) Compliance Schedules for Final Effluent Limitations – the two line items with this title should be combined into one and labeled consistent with Section VI.C.7.a. In addition, the reference should be to Section VI.C.7.a.ii
- c) Pollution Prevention Plan – the two line items with this title should be combined into one. In addition, the reference should be to Section VI.C.7.a.ii.

- d) Treatment Feasibility Study – these two line items should be deleted, as there are no such provisions in the Order.

*Page E-16/17, Other Reports 2.* This provision states: “Within 60 days of the Effective Date of this Order, the Discharger shall submit a report outlining minimum levels, method detection limits, and analytical methods for approval, with a goal to achieve detection levels below applicable water quality criteria. At a minimum, the Discharger shall comply with the monitoring requirements for CTR constituents as outlined in Section 2.3 and 2.4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, adopted 2 March 2000 by the State Water Resources Control Board. All peaks identified by analytical methods shall be reported.” [emphasis added] This last sentence is out of place in this section, and the City requests that it be deleted from the Order. It is beyond the reporting requirements specified in the SIP. If this is intended to remain in the Order, this sentence should be located in Reporting Protocols (p. E-11).

#### **Attachment F**

*Page F-3, Table F-1 Facility Information.* The City requests that the table be revised to show that Reclamation Requirements are “Not Applicable.”

*Page F-6, Table F-2 Historic Effluent Limitations and Monitoring Data.* The table is not complete. The City requests that the historic monitoring data be added to the table.

*Page F-18, item b.* The City requests that “Persistent chlorinated hydrocarbon pesticides” be deleted from this list, as this is a classification of pesticides, not a specific constituent. The list appropriately identifies the pesticides within this class (e.g., Dalapon, beta Endosulfan) that have been found to have reasonable potential to cause exceedance of the Basin Plan’s pesticide objective.

*Page F-20 and throughout Fact Sheet.* There appears to be a typographical error. Statements in the Fact Sheet provide an incorrect reference to the section containing the interim effluent limitations derivation, which is Section IV.E.1, not Section IV.E.3 (no such section exists).

*Page F-20 and throughout Fact Sheet.* There appears to be a typographical error. The last two sentences of many sections describing the derivation of WQBELs state: “As part of the compliance schedule, this Order requires the Discharger to submit a corrective action plan and implementation schedule to assure compliance with the final [parameter] effluent limitations. In addition, the Discharger shall submit an engineering treatment feasibility study and prepare and implement a pollution

prevention plan in compliance with CWC section 13263.3(d)(3).” [emphasis added] Page 31 of the Order requires a pollution prevention plan, but does not require a corrective action plan, implementation schedule, or an engineering treatment feasibility study. No such requirement appears anywhere in the Order. If the Order is requiring such as items, they should be identified appropriately on p. 31. Otherwise, these statements should be deleted from the Fact Sheet.

*Page F-20, IV.C.3.f. Ammonia, Table F-7, page F-46.* The spreadsheet provided below follows EPA guidance, is protective of aquatic life, and is the approach used in the City of Atwater’s NPDES permit adopted in June 2007 (R5-2007-0063). It is also the approach being used for the City of Brentwood’s recently adopted NPDES permit. The acute criteria were calculated using the CMC equation (salmonids present) in the 1999 Ammonia Update. For each season, the 1/10th percentile of the calculated chronic criteria was determined. This assures protection at the 99.9 percentile level, which is a “reasonable worst-case” scenario that is consistent with the 1-in-3 year average frequency for criteria excursions recommended by the U.S. EPA. The chronic criteria were calculated using the CCC equation (early life stages present) presented in the 1999 Ammonia Update. The Discharger requests the following modifications:

Effluent limitations for ammonia in this Order are fixed year-round limitations that are based on reasonable worst-case conditions. Since Hangtown Creek is an effluent dominated waterbody, effluent temperature and pH data, from the Discharger’s monthly monitoring reports between June 2004 and June 2007, were used for the calculation of the new “fixed” effluent limitations.

The Discharger’s data show that the highest pH values occur in the receiving water in February and March and the highest temperatures occur in the effluent in August. The highest reported receiving water pH was 9.3 in March 2007 and the highest reported effluent temperature was 79.1 °F (22.17 °C) from August 2005.

The CMC for ammonia varies only with pH. The Basin Plan objective for pH in the receiving stream is the range of 6.5 to 8.5. However, the treatment facility discharge has never exceeded a pH of 8.0. To calculate an effluent limitation based on acute criteria, the pH of 8.0 was used to determine the CMC for ammonia is 5.62 mg N/L as a 1-Hour Average.

The CCC for ammonia varies with pH and temperature. The 30-day average CCC is calculated using the temperature and pH of the effluent. Using effluent data from June 2004 through June 2006, the CCC was calculated for each day when temperature and pH were measured. The lowest 99.9% 30-day average

CCC was 2.86 mg/L during this period. As a chronic criterion, long-term conditions were assessed. The highest 30-day rolling average effluent temperature was 78.2 °F (25.67 °C). Because pH is expressed as a logarithm, direct calculation of an average pH is not mathematically possible. The effluent pH has never exceeded a pH of 8.0. The pH of 8.0 and the maximum 30-day rolling average temperature result in a CCC for ammonia of 1.19 mg N/L as a 30-Day Average. The USEPA recommended maximum 4-Day Average concentration is 2.5 times the CCC or ~~2.98~~7.16 mg N/L as a 4-Day Average.

Concentration-based effluent limitations for ammonia are included in this Order to assure the treatment process adequately nitrifies the waste stream to protect the aquatic habitat beneficial uses. The effluent limitations were calculated using the CMC, CCC, and 2.5 times the CCC. The ammonia effluent limitations are ~~4.55~~2.80 mg/L (as N) as the AMEL and ~~2.00~~5.62 mg N/L as the MDEL. (See Attachment F, Table F-7 for WQBEL calculations.)

**Table F-7****Total Ammonia - WQBEL Calculations**

	Acute	Chronic (30-day)	Chronic (4-day)
pH <sup>(1)</sup>	8.0	8.0	N/A
Temperature °C <sup>(2)</sup>	N/A	25.67	N/A
Criteria (mg/L) <sup>(3 1)</sup>	5.62	2.86	7.16
Dilution Credit	No Dilution	No Dilution	No Dilution
ECA	5.62	2.86	7.16
ECA Multiplier	0.321	0.780	0.527
LTA <sup>(4 2)</sup>	1.80	2.23	3.77
AMEL Multiplier (95 <sup>th</sup> %)	<sup>(5)</sup> <u>1.55</u>	<del>1.27</del> <sup>(3)</sup>	<sup>(5 3)</sup>
<b>AMEL (mg/L)</b>	<sup>(5)</sup> <u><b>2.80</b></u>	<b>1.30</b> <sup>(3)</sup>	<sup>(5 3)</sup>
MDEL Multiplier (99 <sup>th</sup> %)	<sup>(5)</sup> <u>3.11</u>	<del>1.91</del> <sup>(3)</sup>	<sup>(5 3)</sup>
<b>MDEL (mg/L)</b>	<sup>(5)</sup> <u><b>5.62</b></u>	<b>2.00</b> <sup>(3)</sup>	<sup>(5 3)</sup>

<sup>(1)</sup> ~~Acute design pH = 8.5 (max. allowed effluent pH)~~

Chronic design pH = 8.0 (effluent pH maximum)

<sup>(2)</sup> ~~Temperature = 78.2 °F (25.67 °C) Maximum 30-day rolling average seasonal effluent temperature~~

- (3) (1) USEPA Ambient Water Quality Criteria
- (4) (2) LTA developed based on Acute and Chronic ECA Multipliers calculated at 99th percentile level per sections 5.4.1 and 5.5.4 of TSD.
- (5) (3) ~~30-Day Chronic LTA~~ < Acute LTA < ~~30-Day Chronic LTA~~ (and < 4-Day Chronic LTA), therefore, limitations based on 30-Day Chronic Acute LTA

The following statement is inaccurate and should be removed:

~~Because pH is expressed as a logarithm, direct calculation of an average pH is not mathematically possible.~~

While the plant may not need compliance schedules, the monitoring data should be reported correctly here.

The ammonia data reported by in the Discharger's monthly monitoring reports between June 2004 and June 2007 indicate a MEC of 5.4 mg/L. ~~consisted of 12 samples collected for 12 months in 2002 and 2003. The MEC was 0.56 mg/L,~~ which is less than the acute criteria and the proposed effluent limitations. Based on the sample results in the effluent, it appears that the Discharger is able to comply with the effluent limitations for ammonia. Therefore, no interim effluent limitations are appropriate in this Order.

*Page F-22, Bis (2-ethylhexyl) phthalate.* The City requests that this section be deleted since there is no effluent limit for this constituent.

*Page F-24, Copper.* There appears to be a typographical error. The interim limitation cited in this section should be 13.4 ug/L, not 13.3 ug/L (see p. F-59).

*Page F-26, Dibromochloromethane.* There appears to be a typographical error. The interim limitation cited in this section should be 2.66 ug/L, not 2.74 ug/L (see p. F-59).

*Page F-27, Dichlorobromomethane.* There appears to be a typographical error. The interim limitation cited in this section should be 15.7 ug/L, not 2.74 ug/L (see p. F-59).

*Page F-28, Lead.* Same comment as above for iron applies here.

*Page F-29, Manganese.* Same comment as above for iron applies here.

*Page F-30 MTBE.* The City requests clarification. The text indicates the final MTBE limit is an annual average. Table 6 in the Tentative WDRs indicates the limit is an AMEL.

*Page F-34, p. Iron.* This section states incorrectly that the discharge has the reasonable potential to cause or contribute to an in-stream excursion above the MCL for iron. To the contrary, the maximum effluent iron concentration is lower concentration than the receiving water iron concentration, and the maximum effluent iron concentration is lower than the applicable MCL. Thus, it is not possible for the discharge to contribute to an excursion of the MCL. Rather, the SIP procedure requires an effluent limitation when a parameter's background concentration is greater than the water quality objective and that parameter has been detected in the effluent. To accurately reflect the nature of the discharge and the basis for the effluent limitation for iron, the City requests the following modifications to this section: "The MEC for iron was 81.3 ug/L, based on 13 samples collected between February 2002 and January 2005, while the maximum observed upstream receiving water iron concentration was 1570 ug/L, based on 12 samples collected between February 2002 and January 2003. The receiving water concentration exceeds the water quality criteria.

~~Therefore, the discharge has reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan Objective and the MCL for iron. Because the maximum receiving water concentration of iron exceeds the MCL and iron has been detected in the effluent, an effluent limitation for iron is required.~~

*Page F-36, Table F-4.* There appears to be typographical error. The average and maximum EC values for the effluent should be 722 umhos/cm and 1186 umhos/cm, respectively, as stated on p. F-37.

*Page F-38, Salinity Effluent Limitations.* The Fact Sheet states: "To regulate salinity, this Order includes an interim annual average EC effluent limitation of 825 umhos/cm based on the maximum annual average that occurred between June 2006 and June 2007." Setting an annual performance based limit equal to the highest annual average observed over a 2-year period is inappropriate and would result in a high probability of interim limit exceedance. A more appropriate was to set this interim limit would be to calculate annual running averages for the 2-year period, then take the mean of the running annual averages + 3.3 standard deviations.

*Page F-39, Salinity Effluent Limitations.* There appears to be typographical error. In the first full paragraph, the interim limitation cited should be 825 umhos/cm, not 824 umhos/cm.

*Page F-41, Temperature limitations.* The City suggests deleting the table. The table and the 2nd through 5th bullets state the same thing. Having them both presented is confusing.

*Page F-42, THMs.* The City requests the following edit: "This cancer potency factor is equivalent to a chloroform concentration in drinking water of 1.1 µg/L (ppb) at the 1-in-a-million cancer risk level with an average daily consumption of two liters of drinking water over a 70-year lifetime. This risk level is consistent with that used by the DHS to set de minimis risks from involuntary exposure to carcinogens in drinking water in developing MCLs and Action Levels, and by OEHHA to set negligible cancer risks in developing Public Health Goals for drinking water. The one-in-a-million cancer risk level is also mandated by USEPA in applying human health protective criteria contained in the NTR and the CTR to priority toxic pollutants in California surface waters."

These latter statements are incorrect and unnecessary and, therefore, should be deleted. The 1-in-a-million cancer risk level is not used by DPH in setting MCLs. If it was, then the total THM MCL would be 6.7 ug/L – equal to the sum of the individual constituent criteria that are based on a 1-in-a-million cancer risk level. The fact that DPH issued an MCL of 100 ug/L is largely due to working with a risk level greater than 10<sup>-6</sup>.

*Page F-44, Zinc.* There appears to be typographical error. The interim limitation cited in this section should be 87.3 ug/L, not 76.8 ug/L (see p. F-59).

*Pages F-44-45, b. Effluent Limitation Calculations.* The presentation of the equations for the effluent concentration allowance (ECA) is incorrect.  $ECA_{acute}$  and  $ECA_{chronic}$  are shown as being directly equal to the CMC and CCC, respectively, whereas the  $ECA_{HH}$  equation is shown to have a dilution credit allowance. Furthermore, the sentence above the  $ECA_{HH}$  equation implies that dilution credit is only applicable to "human health, agriculture, or other long-term criterion/objective." Dilution credit may be applied to aquatic life criteria-based ECAs, as provided for in the general equation for calculating ECAs on p. 8 of the SIP:  $ECA = C + D(C-B)$ . Therefore, the City requests that the text and equations for the  $ECA_{acute}$  and  $ECA_{chronic}$  be modified as follows:

“c. Effluent Limitation Calculations. In calculating maximum effluent limitations, ~~the effluent concentration allowances were set equal to the criteria/standards/objectives.~~ the ECA is calculated as follows:

$$ECA_{acute} = CMC + D(CMC-B); \text{ and}$$
$$ECA_{chronic} = CCC + D(CCC-B)$$

For the human health, agriculture, or other long-term criterion/objective, ~~a dilution credit can be applied.~~ The ECA is calculated as follows:”

It only happens that the  $ECA_{acute}$  and  $ECA_{chronic}$  are equal to the CMC and CCC, respectively, because no dilution credit is being applied. However, this should not be the default presentation of the fundamental equations for the  $ECA_{acute}$  and  $ECA_{chronic}$ . If the intent is to leave the equations as presented in the Order, then a statement must be added to this section explaining the reason for the presentation of the equations in this form (i.e., no dilution credit is being applied) and the  $ECA_{HH}$  must also be shown as directly equal to the HH for this same reason (i.e., no dilution credit is being applied).

*Page F-45, Effluent Limitation Calculations.* The City requests that the explanation of the derivation of AMELs based on human health criteria be modified as follows to reflect the fact that AMELs are derived from ECAs, not vice versa: “Human health ECAs-AMELs based on human health criteria are set equal to the AMEL-human health ECAs and a statistical multiplier is used to calculate the MDEL.”

*Page F-45, last sentence.* There appears to be a typographical error. The last sentence on this page should reference Tables F-6 through F-14.

*Page F-51, Table F-15 Summary of Water Quality-Based Effluent Limitations.* The City requests that the MDELs for iron and manganese be removed. The calculation of MDELs are not appropriate for iron and manganese given that the applicable criteria are secondary MCLs. Such a change is consistent with the effluent limitations for iron and manganese reported in Table 6 “Final Effluent Limitations.”

*Page F-51, Persistent Chlorinated Hydrocarbon Pesticides.* This presentation of the effluent limitation for persistent chlorinated hydrocarbon pesticides is inconsistent with footnote # 11 on p. 11 and the compliance determination explanation on p. 32. The City requests that these be made consistent with the language on p. 32, and reiterates its request for the additional modifications to the compliance determination explanation on p. 32, as described in our above comment on this section, to ensure proper interpretation of analytical results for compliance determination purposes.

*Page F-54, Mass-based Effluent Limitations.* There appears to be a typographical error. The last sentence of this section should reference Section IV.A.1.g, not IV.A.1.i.

*Page F-54, Averaging Periods for Effluent Limitations.* The City requests the following modifications are needed to correctly describe the types of effluent limitations included in the Order, and to reflect the City's assertion that a maximum daily effluent limitation for nitrate + nitrite is not needed, as described in our previous comment above:

“This Order uses maximum daily effluent limitations in lieu of average weekly effluent limitations for aluminum, ammonia, ~~atrazine, chlorine residual<sup>5</sup>~~, copper, dichlorobromomethane, dibromochloromethane, cyanide, lead, MTBE, ~~total nitrates plus nitrites, total trihalomethanes,~~ and zinc, as recommended by the TSD for the achievement of water quality standards and for the protection of the beneficial uses of the receiving stream. Furthermore, for BOD, TSS, pH, chlorine<sup>5</sup>, coliform, and turbidity, weekly average effluent limitations have been replaced or supplemented with effluent limitations utilizing shorter averaging periods.”

*Page F-57, Fourth bullet.* There appears to be a typographical error. The dates should be changed from 18 March 2010 to 18 May 2010, which is the SIP deadline and the compliance date specified elsewhere in the Order.

*Page F-59, Table F-16.* Interim Effluent Limitation Calculation Summary. There appears to be several typographical errors.

- The MEC for Endrin Aldehyde is 0.51 ug/L, which occurred in December 2005 (rather than 0.051 ug/L as noted).
- The MEC for Zinc is 111 ug/L, which occurred in November 2002 (rather than 76 ug/L as noted).

In addition, the interim limitation for THMs should be presented as 285 ug/L, not 284.6 ug/L, to maintain consistency with the presentation of this interim limitation throughout the Order.

*Page F-60, Heptachlor WQBEL Calculations.* There appears to be a typographical error. This table should be labeled “Table F-19” to maintain sequential numbering.

Ms. Diana Messina, P.E.  
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March 10, 2008

**Cease and Desist Order**

*Page 2, Finding 5, Table Final Effluent Limitations.* The City requests that the table be revised to add the final instantaneous maximum effluent limitations for turbidity and total coliform organisms specified in Table 6 in the Tentative WDRs.

*Page 2, Finding 6.* The City requests that the finding be expanded to add the final instantaneous maximum effluent limitations for turbidity and total coliform organisms specified in Table 6 in the Tentative WDRs.

*Page 4, Order 1.* The first sentence should be revised to add Final Effluent Limitations IV.A.1.a. for turbidity and total coliform organisms.

*Page 4, Order 2.* The City requests that the schedule for full compliance with the receiving water temperature limit be changed from June 1, 2009 to October 1, 2009. The extended schedule is required to allow the City to startup and test the cooling towers during the summer of 2009.

We look forward to meeting with you on March 31, 2008 to discuss our comments. If there are any questions, please contact me at (530) 642-5557, or Steve Herrera with Owen Psomas, at (530) 677-5286, or Mike Bryan with Robertson-Bryan, Inc. (916) 714-1802.

Sincerely,



Randy Pesses  
Public Works Director

RP:jm

cc: John Driscoll, City of Placerville  
Dan Yaroach, City of Placerville  
Webb Owen, Owen Psomas  
Steve Herrera, Owen Psomas